



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY  
REGION 5  
77 WEST JACKSON BOULEVARD  
CHICAGO, ILLINOIS 60604

DATE: JUN 13 2017

SUBJECT: CLEAN AIR ACT INSPECTION REPORT  
Reclamation Technologies, Inc.

FROM: Gregory Gehrig, Environmental Engineer  
AECAB (MI/WI)

THRU: Sarah Marshall, Section Chief  
AECAB (MI/WI)

TO: File

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**BASIC INFORMATION**

**Facility Name:** Reclamation Technologies, Inc.

**Facility Location:** 10005 Flanders Ct NE, Blaine, MN 55449

**Date of Inspection:** June 8, 2017

**Lead Inspector:** Gregory Gehrig, Environmental Engineer

**Other Attendees:** Kevin Schatz, Reclamation Technologies, Inc.

**Purpose of Inspection:** CAA Compliance, focusing on stratospheric ozone protection

**Facility Type:** Refrigerant reclamation and sales

**Regulations Central to Inspection:** 40 CFR Part 82

**Arrival Time:** 0800 hrs

**Departure Time:** 1040 hrs

**Inspection Type:**

- ☒ Unannounced Inspection  
☐ Announced Inspection

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### **OPENING CONFERENCE**

- ☒ Credentials Presented
- ☒ CBI warning to facility provided

The following information was obtained verbally from Mr. Schatz unless otherwise noted.

**Company Ownership:** Same ownership since the company started in 1997.

### **Process Description:**

Reclamation Technologies, Inc. (RT) accepts used refrigerants from Minnesota, Wisconsin and South Dakota, although the majority of refrigerants are accepted from HVAC contractors in the Twin Cities metro area. They accept all refrigerants, included mixed refrigerant loads. RT provides an off-site cylinder exchange program to HVAC contractors. They also provide off-site refrigerant recovery services. Each refrigerant cylinder is analyzed with a micro gas chromatograph, which takes approx. three minutes. The cylinder's contents are then consolidated and sent to simple distillation to remove higher-weight/lower-boiling point impurities such as oil and water (condensables). After consolidation, cylinders are drawn down to be completely empty with a vacuum pump from 15 in Hg to 30 in Hg, or 100 microns. Refrigerant is vented to the atmosphere during this draw down. Refrigerant is also vented from product tanks when removing air (non-condensables). Mr. Schatz indicated he has collected this released gas for GC analysis and that it indicated a 'very low' amount of refrigerant released, but didn't keep the results. I requested he perform such a collection and analysis and provide it to EPA.

Some refrigerants cylinders are held for fractional distillation. These are batches where there are several types of refrigerant in the batch. Fractional distillation is time consuming and labor intensive relative to the rest of the process, which has led to a back-log of off-spec containers. RT is working to increase fractional distillation capacity. Once processing is complete, RT collects a sample for analysis. Most product batches of R-22 are analyzed in-house, with a 20% quality analysis performed by Intertek of Columbus, Ohio. 90% of all other product batches are analyzed by Intertek, a third-party laboratory. If the batch meets spec, it is packaged for resale.

### **TOUR INFORMATION**

**EPA toured the facility:** Yes

### **Data Collected and Observations:**

RT was operating normally during the facility tour. The entire process described above was observed and photographs were taken. Additionally, before and after weights of one 30-lb and 50-lb cylinder were collected over the final vacuum drawn down was collected. This measurement revealed approx. 0.05 lb of refrigerant released from each cylinder type, although the scale used was only calibrated to a 0.05 lb sensitivity.

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**Field Measurements:** were not taken during this inspection.

**RECORDS REVIEW**

- Hand-drawn process flow diagram – retained

**CLOSING CONFERENCE**

**Requested documents:**

- Percentage of refrigerant loss demonstration via production tracking worksheets for bulk refrigerants processed for previous five years up to April 2017.
- Product final analysis samples, both internal and from Intertek.
- Analysis of non-condensables releases to the atmosphere from typical refrigerant batch.

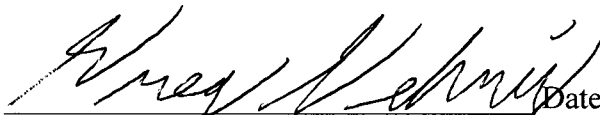
The above documents were provided by RT in an email to EPA on June 9, 2017.

**Compliance Assistance:** None

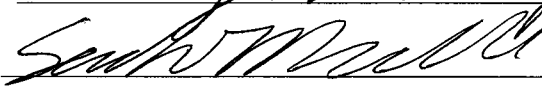
**Concerns:** None

**SIGNATURES**

Lead Inspector:

 Date: 6-12-17

Section Chief:

 Date: 6/13/17

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**APPENDICES AND ATTACHMENTS**

- Photos: 11 taken